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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,783	12/17/2003	Fumikane Honjou	67471-033	4690
7590 06/26/2006		EXAMINER		
MCDERMOTT, WILL & EMERY		ARANCIBIA, MAUREEN GRAMAGLIA		
600 13th Street, N.W.		ART UNIT		
Washington, DC 20005-3096		PAPER NUMBER		

1763

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

W

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No.	Applicant(s)	
	10/736,783	HONJOU ET AL.	
	Examiner	Art Unit	
	Maureen G. Arancibia	1763	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 June 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1, 2, 4-12 and 14-21.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

*Maureen G. Arancibia*

*P.L.*  
**PARVIZ HASSANZADEH**  
**SUPERVISORY PATENT EXAMINER**

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 7 June 2006 have been fully considered but they are not persuasive.

In regards to Applicant's arguments against the rejection under 35 U.S.C. 112, second paragraph, these arguments are not persuasive. The Examiner maintains that the recitations in independent claims 1 and 11 of "a plurality of pieces formed in relation to a distribution of temperatures in the...chamber during the plasma processing," and the recitation that "each of the plurality of pieces is shorter in axial length than a piece disposed at a location where a gradient of the temperatures during the plasma processing is smaller" render the claims indefinite.

Applicant argues regarding "Factor 1" of this rejection (that the distribution of temperatures in the plasma or sample chamber, and the distribution of temperature gradients, may vary in the claimed apparatus, depending, for example, on the presence and use of additional structural components; i.e. heaters; the presence of a conduit putting the sample chamber in communication with the plasma chamber) that persons skilled in the art would know that once the protection tube is secured in the plasma or sample chamber, neither chamber is opened, and that therefore the apparatus does not undergo any structural change, such as addition or change of any components. This argument is not convincing. The claims recite that the apparatus "comprises" various components. "Comprises" is an open-ended transitional phrase that does not exclude additional structural components from the apparatus. (See MPEP 2111.03.) Thus, the apparatus recited in the claims could include additional structural components that could alter or do away with the distribution of temperature gradients. This causes the recitations listed above to be indefinite, as they have no fixed or defined meaning.

Applicant argues regarding "Factor 2" of this rejection (that the distribution of temperatures in the plasma or sample chamber, and the distribution of temperature gradients, may vary in the claimed apparatus, depending, for example, on the type of processing performed using the apparatus or environmental factors) that even if the distribution of temperatures or temperature gradients change in the apparatus due to the type of processing performed or environmental factors, that the relationship between any two locations in the plasma or sample chamber does not change in terms of magnitude of the temperature gradient. This argument is not convincing, as it is not at all clear that this assertion is true. It is well settled that arguments of counsel unsupported by competent factual evidence of record are entitled to little weight. In re Payne, 606 F.2d 303,315, 203 USPQ 245,256 (CCPA 1979). Moreover, as the claims do not recite a structural relationship between the various components (ex. the plasma chamber and the sample chamber, or the protection tube and the plasma source), it is unclear that any factual evidence could be presented that would show that the distribution of temperature gradients has a definite meaning in the context of the claims.

Applicant argues regarding "Factor 3" of this rejection (that the distribution of temperatures in the plasma or sample chamber, and the distribution of temperature gradients, may vary in the claimed apparatus, depending, for example, on, the length of time processing has already been performed up to the point referred to as "during the plasma processing") that irrespective of the amount of time that has passed up to the point of time denoted as "during the plasma processing," the relationship between any two locations in the plasma or sample chamber does not change in terms of magnitude of the temperature gradient. This argument is also not convincing, as again, there is no basis to believe that this assertion is true. Again, it is well settled that arguments of counsel unsupported by competent factual evidence of record are entitled to little weight. In re Payne, 606 F.2d 303,315, 203 USPQ 245,256 (CCPA 1979). But as in regards to Applicant's argument against "Factor 2" of the rejection, it is not at all clear that any factual evidence could be presented that would show that the distribution of temperature gradients has a definite meaning in the context of the claims. The recitations in the claims represent an attempt to build a structural definition of the arrangement of the pieces of the protection tube based on recitations of intended use that have no fixed or defined meaning.

Applicant further argues that at the time of designing the plasma processing apparatus, those skilled the art would be able to specify the temperature gradient that would occur during the plasma processing. This argument is not convincing. It is noted that the features upon which applicant relies (i.e., the generation of a magnetic field within the plasma chamber filled with a gas such as argon; the generation of a steep temperature gradient in proportion to the plasma gas distribution) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Moreover, one of ordinary skill in the art would still have no standard for determining what time is referred to as "during the plasma processing." The distribution of temperature gradients may change based on how the plasma is ignited, whether the plasma has only just been ignited or if thermal equilibrium has already been attained, etc. Again, there is no clear standard for determining where in the claimed apparatus the temperature gradient would be greater or smaller. The amendment to the claims to recite the distribution of temperatures "during" the plasma processing rather than "at a time of" the plasma processing does not alleviate this issue.

In sum, the recitations in independent claims 1 and 11 of "a plurality of pieces formed in relation to a distribution of temperatures in the...chamber during the plasma processing," and the recitation that "each of the plurality of pieces is shorter in axial length than a piece disposed at a location where a gradient of the temperatures during the plasma processing is smaller" have no fixed meaning, and therefore are still deemed to make the claims indefinite.

In regards to Applicant's arguments against the rejection under 35 U.S.C. 103(a), these arguments are not persuasive. Specifically, in response to Applicant's argument that the combination of the cited prior art does not teach protecting an inner wall of a chamber against temperature gradients or preventing breakage of the protection tube, the fact that Applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In regards to Applicant's argument that the applied combination of the cited references does not teach all of the structural limitations of the claims, and that therefore, Ex parte Masham is not applicable in this situation, this argument is not persuasive. As set forth in the previous office action, the recitation that the plurality of pieces is formed in relation to a distribution of temperatures in the plasma chamber during plasma processing, and the recitation that each of the plurality of pieces is shorter in axial length than a piece disposed at a location where a gradient of temperatures during plasma processing is smaller are process limitations, not structural recitations as Applicant asserts. In other words, the recitations in the claims represent an attempt to build a structural definition of the arrangement of the pieces of the protection tube based on recitations of intended use. These recitations do not succeed in being structural recitations, since the distribution of temperatures and the distribution of temperature gradients would depend, among other factors, on the presence and/or use of additional structural components (i.e. heaters; the presence of a conduit putting the sample chamber in communication with the plasma chamber), the type of processing performed using the apparatus, environmental factors, or the length of time processing has already been performed up to the point referred to as "during plasma processing." Moreover, as discussed in the rejection under 35 U.S.C. 112, second paragraph, not only are these process limitations, but also limitations with no definite or fixed meaning.

It has been held that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114. See also In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997); In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959); and Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

In this case, the combination of the cited prior art teaches the structural limitations of a protection tube comprising a plurality of pieces disposed in an axial direction, and varying in length. This structure does meet all of the structural limitations of the claim. The apparatus taught by the combination of the cited prior art would be capable of being operated in such a way and with various environmental conditions and process settings, so as to generate any number of distributions in temperature and temperature gradient, which in turn would be capable of corresponding to a given arrangement of the axial segments of the protection tube.